Chapter 9 CRT Questions

1. What index value does the third element of an array have?

The third element of an array would have an index of 2, as it starts from 0, 1, 2.

2.) Write the declaration for an array named *quantities* that stores 20 integers.

int [] qunatities = new int [20];

3. Write a declaration for an array named heights storing the numbers 1.65, 2.15, and 4.95.

double[] heights = {1.65, 2.15, 4.95};

4. Write a for-each statement that displays the integer values stored in an array named grades.

```
for (int grade : grades) {
 System.out.println(grade);
}
```

6. How does passing an entire array to a method differ from passing a single element of the array?

When you pass a single element of an array, you pass the copy of that element's value. Changes inside method don't affect the original array. When you pass an entire array, you pass the reference to the array. Changes inside the method affect the original array.

7. Why are offset array indexes required in some cases?

Offset array indexes might be required when using variables to access a specific index of an array. Since the index of an array starts at 0 and not 1, the variable's value most likely will not correspond to the value they want.

8. What output is displayed by the statements below?

String name = "Elaine";
System.out.println(name.charAt(3));

The output that is displayed is the letter "i," because the index of an array starts at 0, 1, 2, 3, … This means chatAt3 is the 4th character, which is i.

0 = E,
1=l,
2=a,
3=i
4=n
5=e